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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,217

09/22/2006

Celine Berthod

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EXAMINER

NGUYEN, DONGHAI D

ART UNIT

PAPER NUMBER

3729

MAIL DATE

DELIVERY MODE

09/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,217	Applicant(s) BERTHOD, CELINE	
	Examiner DONGHAI D. NGUYEN	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/26/07; 3/26/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: “length 20” (page 9, line 25) should be --length 21--; “the said” (claims 3, 4 and 21, last line; claims 6, 7, 11, 18, 22 and 23, line 2; claim 17 and 21, first line) should be --the-- or --said--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4-6, 11 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“according to claim 17 taken in combination with claim 3” (claim 18, line 1) is vague and indefinite because it is uncertain as to only the limitations of claim 3 or the limitations of claims 2 and 3 being combined to the limitation of claim 17.

“the inductor” (claim 4, lines 2-3) lacks antecedent basis.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 3729

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 12-16 and 19-23 are rejected under 35 U.S.C. 102(b) as anticipated by GB Patent 766,115 to Cook or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cook in view of article XP-00235254 (herein XP).

Regarding claims 1 and 2, Cook discloses a method of producing a steel starter head shaft (see Fig. 1) that comprises successively at least one first front guidance length sliding axially on a starter head, a second fluted intermediate length comprising external flutes able to cooperate with complementary internal flutes on the starter head, and a third rear length comprising at least one annular shoulder transverse face oriented towards the front, which constitutes a rear stop face for determining a determined axial position of the starter head, the method comprising at least the following successive steps: a) machining the three first, second and third lengths (see Fig. 1); b) producing the external flutes (16) of the second intermediate length (15); c) surface heat treatment of at least an axial part of the starter head shaft (see page 2, lines 16); characterized in that the method includes an additional step, prior to the heat treatment step, of reducing the residual mechanical stresses resulting from the steps prior to the heat treatment (after forging the shaft see Page 1, lines 57-58).

If Applicant argues that Cook does not disclose the step of reducing the residual mechanical stress by annealing. XP teaches the step of reducing the residual mechanical stress cause by mechanical work by annealing the workpiece (see page 616, cols. 2-3). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Cook by utilizing the step of reducing the residual mechanical stress cause by mechanical work as taught by XP.

Art Unit: 3729

Regarding claims 12-16, Cook discloses the step of annealing at least an axial portion of the starter head shaft is an operation of heating the starter head shaft in a furnace, the heating temperature is between 500°C and 700°C for about between 30 minutes and 120 minutes then slowly cooling the shaft to ambient temperature (see page 1, lines 11-16).

Regarding claims 19-23, Cook discloses the limitations of 19-23 (see Fig. 1).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-11 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cook in view of US Patent 3,169,893 to Wuerfel or 3,648,995 to Seyfried et al.

Regarding claims 3, 4, 6, 11 and 17-18, Cook discloses the specific method of annealing at least an axial portion of the starter head shaft. Wuerfel teaches the step of annealing the starter head shaft by induction along the surface of said axial portion, which the inductor is axially static with respect to the said portion of the starter head shaft (see Figs. 1); and Seyfried et al also teach the above limitations (see Figs. 4-8) for heat treatment the workpiece. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Cook by utilizing the inductive heating as taught by either Wuerfel or Seyfried et al for annealing at least an axial portion of the starter head shaft.

Art Unit: 3729

Regarding claims 5, 8-10, Cook/Wuerfel or Cook/Seyfried et al as applied above do not disclose the static heating period; speed of the inductor; the heating power; and the rotation speed of the shaft. It would have been an obvious matter of design choice to one having ordinary skill in the art at the time the invention was made to choose any desired static heating period; speed of the inductor; the heating power; and the rotation speed of the shaft, since Applicant has not disclose the specifics heating period, speed of the inductor, the heating power, and the rotation speed of the shaft as claimed, solves any stated problem or is for any particular purpose and it appears the invention would perform equally with the static heating period; speed of the inductor; the heating power; and the rotation speed of the shaft as disclosed by Cook/Wuerfel or Cook/Seyfried et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references cited for their teachings of producing a steel shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONGHAI D. NGUYEN whose telephone number is (571)272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris H. Banks can be reached on (571)-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3729

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
August 30, 2010

/Donghai D. Nguyen/
Primary Examiner, Art Unit 3729